1212-11-514-001

Code No. : **826**

FACULTY OF SCIENCE
M.Sc. IV Semester Examination, April/May 2013
BIOCHEMISTRY
Paper – III : Biotechnology

Time : 3 Hours] [Max. Marks : 80

SECTION – A (8×4=32 Marks)

Note : Answer the following **eight** questions.

1. Sketch the applications of immobilized enzymes.
2. Explain the use of polyarginine tail in protein purification.
3. Discuss briefly on the large scale cultivation of microbes.
4. Write briefly on the secondary metabolities.
5. Give an account on the use of cells and cell lines in animal biotechnology.
6. Explain the salient features of human gene therapy.
7. Sketch the applications of plant cell culture in plant biotechnology.
8. Write briefly on antisense RNA.

SECTION – B (4×12=48 Marks)

Note : Answer the following **four** questions.

9. Discuss the various methods used in the immobilization of whole cells and their enzymes.

OR

Write short notes on :

a) Semisynthetic penicillins and

b) Monoclonal antibodies

10. Discuss in detail on the fermentative production of glutamic acid.

OR

Write short notes on :

a) Starter culture and

b) Bioconversions.

11. Sketch the characteristics of normal and transformed cells and their role in animal biotechnology.

OR

Write short notes on :

a) Stem cells and

b) Genomics.

12. Sketch the principles of generation of transgenic plants and their applications in agriculture.

OR

Write short notes on :

a) Plant viruses as vectors and

b) Ti plasmids.